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Indian Standard

**DIMENSIONS FOR MUSHROOM
VENTILATORS WITH ADJUSTABLE
HEAD — CAST IRON TYPE WITH
PROVISION FOR PASSAGE OF LIGHT**

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

DIMENSIONS FOR MUSHROOM VENTILATORS WITH ADJUSTABLE HEAD—CAST IRON TYPE WITH PROVISION FOR PASSAGE OF LIGHT

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Indian Standard

DIMENSIONS FOR MUSHROOM VENTILATORS WITH ADJUSTABLE HEAD—CAST IRON TYPE WITH PROVISION FOR PASSAGE OF LIGHT

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 20 January 1966, after the draft finalized by the Marine Engineering and Shipbuilding Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 This standard is one of a series of Indian Standards on mushroom ventilators. Other standards in the series are:

IS : 3279-1966 General requirements for mushroom ventilators

IS : 3280-1966 Dimensions for mushroom ventilators with adjustable head — welded type

IS : 3281-1966 Dimensions for mushroom ventilators with fixed head — welded type

IS : 3282-1966 Dimensions for mushroom ventilators with adjustable head — cast iron type

0.3 In the preparation of this standard, assistance has been derived from the following standards, issued by Association Francaise de Normalization:

NF J 45-120 : 1955 Aérateur à vis, en fonte avec verre mort ensemble de montage (Mushroom ventilator — cast iron type with glass top).

NF J 45-122 : 1955 Aérateur à vis, en fonte avec verre mort chapeau (Mushroom ventilator — cast iron type — details of head).

NF J 45-128 : 1955 Aérateur à vis, en fonte couronne et verre mort (Mushroom ventilator — cast iron type — head with glass).

0.4 IS : 3279-1966 'General requirements for mushroom ventilators' is a necessary adjunct to this standard.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS: 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the dimensions for mushroom ventilators with adjustable head — cast iron type, with provision for passage of light.

2. DESCRIPTION

2.1 The body of the mushroom ventilator is cast with a flange and is directly bolted on to the deck.

2.1.1 The body is provided internally with four webs and a central bossing. The hole in the bossing is screwed to suit the operating spindle (see Fig. 1).

2.2 The mushroom head is cast with central bossing supported by suitable webs. A clear hole is provided in the bossing to lock the upper end of the spindle (see Fig. 1).

2.3 Two types, namely, A and B, operating spindles are used depending on the nominal size of the ventilator.

2.4 The assembly of cast iron type mushroom ventilator with glass top shall be as shown in Fig. 1.

3. MATERIAL

3.1 The material of the various parts of the ventilator shall be as given in IS : 3279-1966†.

4. DIMENSIONS AND TOLERANCES

4.1 The dimensions for cast iron mushroom head with glass top and glass retaining ring shall be as given in Tables 1 and 2.

4.2 The dimensions for Type A and Type B operating spindles and body shall be in accordance with IS : 3282-1966‡.

*Rules for rounding off numerical values (revised).

†General requirements for mushroom ventilators.

‡Dimensions for mushroom ventilators with adjustable head — cast iron type.

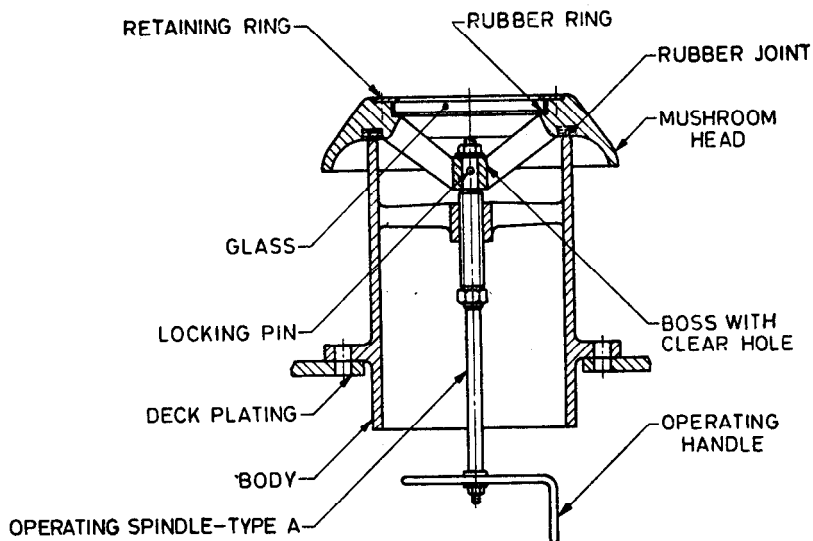


FIG. 1 ASSEMBLY OF CAST IRON TYPE MUSHROOM VENTILATOR WITH GLASS TOP

4.3 The tolerances on the dimensions of the various parts of mushroom ventilators shall be according to the relevant Indian Standards, where available.

4.3.1 The tolerances on all other dimensions shall be according to the coarse series of IS : 2102-1962*.

5. DESIGNATION

5.1 The mushroom ventilators with adjustable head — cast iron type, with provision for passage of light shall be designated by the name, type, the nominal size and number of this standard.

Example:

A mushroom ventilator with adjustable head — cast iron type with provision for passage of light of nominal size 150 mm, conforming to this standard shall be designated as:

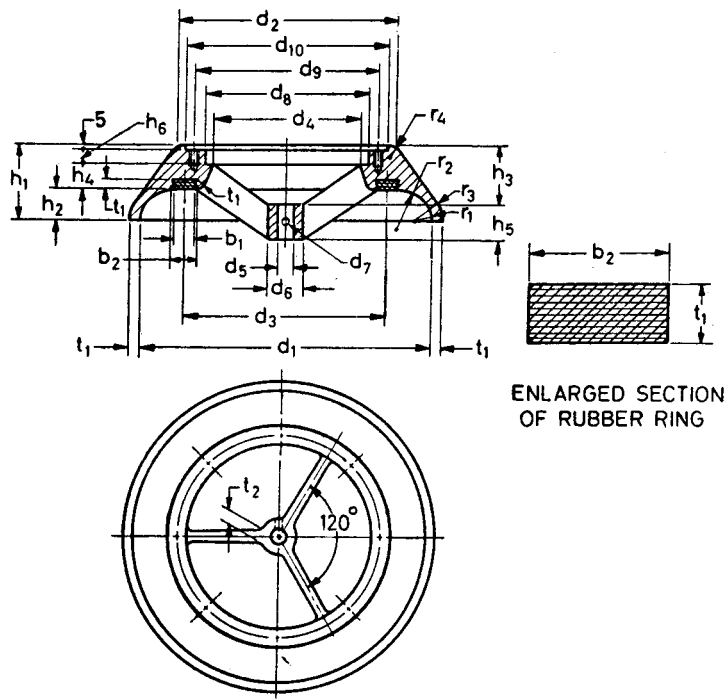
Mushroom Ventilator with Adjustable Head — Cast Iron Type with Provision for Passage of Light 150 IS : 3283.

*Recommendations for machining deviations for dimensions without specified tolerances.

TABLE 1 DIMENSIONS FOR CAST IRON MUSHROOM HEAD WITH GLASS TOP

(Clause 4.1)

(All dimensions in millimetres)

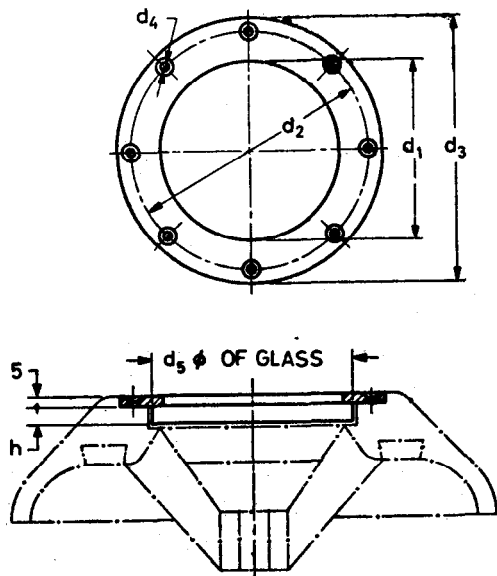


FOR NOMI- NAL SIZE d	b_1	b_2	d_1	d_2	d_3	d_4	d_5	d_6	d_7	d_8	d_9	d_{10}	f_1	h_2	h_3	h_4	h_5	h_6	r_1	r_2	r_3	r_4	t_1	t_2	FIXING SCREWS		
																									Dia	Length	No.
150	20	24	240	160	160	100	16	36	4	112	128	144	67	30	63	20	32	12	26	36	36	12	10	10	M4	12	8
200	20	24	300	224	210	150	16	36	4	168	188	210	78	33	65	24	35	16	29	40	39	12	10	12	M6	16	8
250	24	28	370	280	262	200	22	44	5	219	240	262	88	38	74	26	38	19	30	50	42	12	12	12	M6	16	12
300	24	28	440	330	312	250	22	44	5	270	290	312	98	43	82	27	41	23	32	66	44	12	12	14	M6	16	12
350	24	28	510	380	362	300	26	50	6	321	340	362	103	48	86	27	44	23	34	70	46	14	12	14	M6	16	20
400	24	28	585	430	412	350	26	50	6	371	390	412	108	53	90	27	47	23	40	75	52	14	12	14	M6	16	20

TABLE 2 DIMENSIONS FOR GLASS RETAINING RING

(Clause 4.1)

(All dimensions in millimetres)



FOR
NOMINAL
SIZE
 d

d	d_1	d_2	d_3	d_4	d_5	h
150	96	128	142	4.3	108	9
200	152	188	208	6.4	164	13
250	200	240	260	6.4	214	16
300	250	290	310	6.4	264	20
350	300	340	360	6.4	316	20
400	350	390	410	6.4	366	20

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